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EXAMINER

LAROSE, COLIN M

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 06/16/2004

21

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/333,963

Applicant(s)

TAKAOKA, NAOKI

Examiner

Colin M. LaRose

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,8,11-13,16-18,23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,8,11-13,16-18,23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Arguments and Amendments

1. Applicants' amendments and arguments filed 23 March 2004, have been entered and made of record.

Response to Amendments and Arguments

2. Applicant's arguments have been fully considered but they are not persuasive for at least the following reasons.

Pages 22-24 and 30-32 of the Specification contain the subject matter corresponding to the claimed features of claims 1 and 23 that are presently at issue. In particular, the Specification discloses various "special image processes" that may be designated by a user and performed on an image. The special image processes include hypersharpness processing, hypertone processing, facial expression improvement, lens flare correction, etc. (see pages 22-23).

The user is allowed to designate a plurality of such processes to be performed on an image in combination. For example, if a user desires hypersharpness and hypertone processing to be performed on the image, the user uses a function key, a pull-down operation (page 24, 2nd paragraph), or the like to instruct both hypersharpness and hypertone processing to be executed.

However, the Specification notes that, in some instances, performing two special processes in combination is either impossible from the standpoint of hardware, or the combination would produce a meaningless or redundant result, such as sharpening and then blurring the image (see page 22, lines 13-18). Table 2 illustrates an example in which four pairs of special processes, among a group of 12 special processes, are considered to be "impossible" or

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“meaningless.” In the case that a first special process is designated, and thereafter a second special process is designated to be in combination, wherein the combination of the first and second special processes is impossible or meaningless, the first process is canceled, and the second process designated (page 30, last 3 lines).

The distinction between so-called suitable combinations and unsuitable combinations is identified to prevent hardware problems that would arise by executing impossible combinations and to prevent mutually opposite processes from being executed on the image (page 31, line 22 through page 32, line 9).

In a similar image processing system, Kubo (U.S. Patent 5,828,461) discloses allowing a user to designate various special image processes using pull-down operations (i.e. pull-down menus). As shown in figure 10, special image processes corresponding to size, color tone, and white margin are selected via pull-down menus. Figure 11 shows the details of the menus, whereby one special process, for each category of processes, may be selected and executed on the image.

It should be noted that each of the menus inherently prevents mutually exclusive (i.e. impossible or meaningless) combinations of special image processes to be executed simultaneously. For example, if a user selects “color” finishing and then selects “black and white” finishing, only the “black and white” finishing is retained as the “selected” process in the “color tone” drop-down menu in figure 10. Also, among processes in the “black and white” sub-category, only one process can be selected, since all the processes are mutually exclusive to one another.

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Therefore, it is established that Kubo implicitly teaches that predetermined unsuitable combinations, that would produce impossible or meaningless results, are prevented from being executed. Kubo's figures 10 and 11 also suggest that when an unsuitable combination is designated, the previously designated process is canceled, while the process designated last is retained. However, Nielsen is relied upon for the express teaching of canceling a previously selected process.

Applicant has asserted that Kubo essentially does not disclose the combinations involving separate image processes. Rather, Applicant argues that Kubo's combinations involve "various types of the same special image process" (see page 12 of paper 20).

Examiner disagrees with this narrow characterization of the claimed "separate special image processes." Given the broadest reasonable interpretation, "separate special image processes" simply denotes (at least) two different special image processes (i.e. processes that produce different results or are effected by different methods). For example, in figure 11B of Kubo, the user is given a choice of "color" finishing versus "black and white" finishing. It is clear that "color" and "black and white" finishing are not only separate special image processes, but they are also mutually exclusive special image processes as discussed above.

In addition, creating a margin of 2mm and creating a margin of 3mm are considered to be "separate" special image processes since they do not produce the same results when executed. Clearly, creating a 2mm margin is not the same as creating a 3mm margin. For this reason, they are thought to be separate processes.

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Thus, Kubo implicitly discloses the concept of disallowing a user from executing a combination of special image processes that produces impossible or meaningless results. Kubo, for example, designates “black and white” finishing and “color” finishing as mutually exclusive and disallows a user from executing both processes. While Kubo does not disclose predetermined unsuitable combinations that include two of the enumerated special processes in claims 23 and 24, Hayes is relied upon to show that these processes are known and that it is conventional to include them in an image processing GUI application. In particular, Hayes (figure 4) shows “blur” and “sharpen” processes in the filter drop-down menu as selectable special processes to be applied to the displayed image. The blur and sharpen operations, as was understood by all skilled in the art, are mutually exclusive operations, and the incorporation of blur and sharpen processes in Kubo’s system, wherein Kubo disallows the combinatory execution of both process, would have been an obvious improvement to those skilled in the art.

For these reasons, the previous rejections for claims 1, 23, and all accompanying dependent claims, including newly added claim 24, are considered to be valid.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 3, 8, 11, 13, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo and Nielsen.

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Regarding claim 1, Kubo discloses an image processing apparatus (figure 1) for processing an image recorded on a recording medium, said image processing apparatus comprising:

an image reading device (elements 32, figure 1) for reading the image recorded on the recording medium as digital image data, subjecting the read digital image data to predetermined image processing (conversion portion 40, figure 2 subjects the image data to processing using a look-up table that was previously set (column 13, line 2)), and outputting processed image data (conversion portion 40, figure 2 outputs processed image data to memory 42 or correcting portion 44);

means for carrying out a necessary image processing on all of the image data read by the image reading device (conversion portion 40, figure 2 carries out necessary processing on all the data read by scanner 32);

means for carrying out a special image processing on the image data read by the image reading device, the special image processing being specially designated by an operator request (figure 4 is a user interface for allowing a user to use a cursor 60 to designate special processes (e.g. for specifying "size", "color tone", and "white margin") to be carried out by the CPU 14, figure 1); and

means for instructing the special image processing to be carried out by said special image processing means (mouse 24, figure 1 is means for the user to instruct the processes to be carried out).

Figure 10 of Kubo shows an example of a graphical user interface for instructing special processing to be carried out. Kubo teaches that special processes relating to the image's size, color tone, and white margin are selected via pull-down windows.

Figure 11A lists the special processes related to the size parameter. Similarly, figure 11B and 11C list the special processes related to the color tone and white margin, respectively. It is apparent that the special processes in each of the respective lists are mutually exclusive. For example, the margin cannot be both 2mm and 3mm, so only one margin size can logically be designated (figure 11C). Thus, any specified combination of margin sizes is an erroneous combination. The same is true for specifying both color tone processing and black-and-white processing (figure 11B) or any combination of the different size specifications (figure 11A). Selecting more than one process from any of the three lists in figure 11 is an erroneous special image processing combination. Since the processes in each of the lists are predetermined, any combination of intra-list processes is also predetermined to inherently be erroneous.

The only suitable combination of the special processes from the "size", "color tone", and "white margin" categories is a combination that consists of exactly one special process from each of the three categories. All other combinations that include more than one special process from any one category are predetermined to be unsuitable. Therefore, Kubo implicitly discloses predetermined combinations of special processes (i.e. a combination that includes more than one process from any one category) as being unsuitable but does not teach canceling an instructed special image processing combination if it is one of the predetermined combinations. For example, Kubo does not address the case wherein both the 2mm and 3mm special processes are instructed to be the margin size, or even if said instruction is permitted.

Combinations other than the aforementioned predetermined combinations are clearly allowed by Kubo. That is, a combination that includes only one special image process from each of the three categories is permissible, and the combination is not canceled.

It should also be noted that Kubo implicitly “links” the special image processes together in advance as suitable combinations. For example, the special processes “blue tone” and “margin 2mm” (figure 11) are linked as a suitable (permissible) combination; however, the special processes “margin 2mm” and “margin 3mm” are mutually exclusive, and therefore are not linked as a suitable combination.

Nielsen discloses a user-interface tool (figure 4) that prohibits mutually exclusive options from being carried out. The tool, known as radio buttons, presents the user with a list of mutually exclusive options. The user may select any successive combination of options, however, Nielsen’s tool prevents more than one option from being executed when a user selects mutually exclusive options in combination. Thus, a novice user or the like is prevented from erroneously or negligently executing two or more options that are mutually exclusive (column 2, lines 3-7).

Furthermore, Nielson discloses multiple sets of mutually exclusive options (figure 4). Options 302, 304, and 306 comprise one set, and options 308 and 310 comprise a different set. Since options 302, 304, and 306 are mutually exclusive, a selected option is canceled when another option from the predetermined set is successively selected in combination. The same is true for the set 308 and 310. See column 5, lines 45-59.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kubo by Nielsen to achieve the claimed invention since Kubo implicitly discloses special processes in predetermined combinations (figures 11A, 11B, 11C) are mutually

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exclusive, and Nielsen teaches that radio button sets are used to cancel an option when predetermined successive combinations of mutually exclusive options are selected. This modification is equivalent to replacing each of Kubo's pull down menus with a set of Nielson's radio buttons.

Regarding claim 8, the modification to Kubo by Nielsen teaches that a special image processing instructed last is given priority and a special image processing instructed first is cancelled (column 1, lines 58-60) when the predetermined combination of special image processings has been instructed by said instructing means.

Regarding claim 3, Kubo discloses special image processing means that includes an image structure effects for correcting the overall structure of an image, color reproduction effects for correcting the color tone of the image, and special effects for performing a variety of special processings (figure 4).

Regarding claims 11 and 13, figure 4 of Kubo provides a visual means (element 68) to notify the operator of the special image processings that have been instructed.

Regarding claims 16 and 18, Kubo discloses the use of a monitor (element 30, figure 1) that can display an image in a plurality of display states (elements 86-87, figure 8) and an instruction menu (element 84, figure 8) corresponding to image processings that is made to be valid only when the corresponding image is displayed on the monitor (column 21, lines 29-33). Thus, the image processings activated by the menu buttons must match the display state for any instructions to be considered valid.

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5. Claims 2, 4, 12, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo and Nielsen in view of Nealon.

Regarding claim 2, Kubo discloses an instructing means that gives instructions based on a user's manipulation of a mouse (element 24, figure 1) or a keyboard (element 22, figure 1).

Kubo is silent to a system in which a customer provides, to the instructing means, a recording medium containing order information.

Nealon discloses a method by which a customer presents instructions in accordance with a recording medium, which contains encoded order information. "Customer comments and order instructions are recorded magnetically on the film" (column 7, lines 32-34), and the information is transmitted to an order entry station (column 7, lines 37-49).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kubo by Nealon since inputting a recording medium containing order information to an instructing means is functionally equivalent to inputting order information by a mouse or a keyboard in that both methods accomplish the task of providing instructions.

Regarding claim 4, Kubo discloses special image processing means that includes an image structure effects for correcting the overall structure of an image, color reproduction effects for correcting the color tone of the image, and special effects for performing a variety of special processes (figure 4).

Regarding claim 12, figure 4 of Kubo provides a visual means (element 68) to notify the operator of the special image processings that have been instructed.

Regarding claim 17, Kubo discloses the use of a monitor (element 30, figure 1) that can display an image in a plurality of display states (elements 86-87, figure 8). As established for

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claim 1, an instructed special process is not valid when in a predetermined combination with another mutually exclusive process. Therefore, the instruction is considered valid when the selected contents of the image processing of the special image processing means instructed by the instructing means (i.e. the selected special processes) and the display state of the monitor (i.e. the visual indication of the contents to the use) do not match the predetermined combination.

6. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo in view of U.S. Patent 6,006,279 to Hayes, and Nielsen.

Regarding claim 23, Kubo discloses an image processing apparatus (figure 1) for processing an image recorded on a recording medium, said image processing apparatus comprising:

an image reading device (elements 32, figure 1) for reading the image recorded on the recording medium as digital image data, subjecting the read digital image data to predetermined image processing (conversion portion 40, figure 2 subjects the image data to processing using a look-up table that was previously set (column 13, line 2)), and outputting processed image data (conversion portion 40, figure 2 outputs processed image data to memory 42 or correcting portion 44);

means for carrying out a necessary image processing on all of the image data read by the image reading device, wherein said necessary image processing includes color balance adjustment (74, figure 4; and figure 5);

means for carrying out a special image processing on the image data read by the image reading device, the special image processing being specially designated by an operator request

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(figures 4 and 10 are user interfaces for allowing a user to use a cursor 60 to designate special processes to be carried out by the CPU 14, figure 1), wherein said special processing includes monotone finish (color tone pull-down menu, figure 10; and 106, figure 11B); and

means for instructing the special image processing to be carried out by said special image processing means (mouse 24, figure 1 is means for the user to instruct the processes to be carried out).

Figure 10 of Kubo shows an example of a graphical user interface for instructing special processing to be carried out. Kubo teaches that special processes relating to the image's size, color tone, and white margin are selected via pull-down windows.

Figure 11B lists the special processes related to the "color tone" parameter. More specifically, sub-list 106 lists the special processes related to the "black and white" (monotone) finish parameter. It is apparent that the special processes in the sub-list 106 are mutually exclusive. For example, the monotone finish cannot be both "pure black tone" and "warm black tone" so only one of the two can logically be designated. Any combination that includes two or more monotone finish processes is an erroneous combination; and any combination that includes only one monotone finish is potentially suitable.

Thus, it can be said that combinations of two or more special processes from the "black and white" finish list 106 are predetermined to be unsuitable. However, as stated above for claim 1, Kubo does not expressly disclose canceling an instructed special image processing combination if it is one of the unsuitable predetermined combinations. Also, Kubo does not disclose selecting a combination of at least two of LF lens correction, hypersharpeness, hypertone, etc., which is predetermined to be unsuitable.

Hayes shows a screen shot (figure 4) of the well-known Adobe Photoshop software. In particular, figure 4 shows a picture being edited in a similar fashion as the image in figure 10 of Kubo. In both image editing GUIs of Kubo and Hayes, the user selects various special image processes that he would like to be performed on the image. However, Hayes shows a wider variety of image processes able to be performed, such as blurring, sharpening, and lens flare (LF) correction, wherein some of the operations, such as blurring and sharpening are mutually exclusive processes. Kubo does not explicitly disclose his image-editing software is able to perform these types of special image processes or that it is able to prevent unsuitable combinations of these types of processes, however, it would have been obvious to include the aforementioned processes as selectable options since, as Hayes demonstrates, all three processes were conventional operations utilized in a GUI image-editing software, and including them in Kubo's system, which inherently prevents unsuitable combinations via drop-down menus, would have provided more versatility in editing an image according to the user's desire.

Kubo is silent to the instructing means wherein unsuitable combinations of image processings are prohibited from being executed on the image by said special image processing means and suitable combinations of image processings are permitted to be executed, said unsuitable combinations of image processings including a predetermined combination of at least two separate special image processes selected from the given group, wherein the predetermined combination includes an erroneous combination.

As previously noted, Kubo implicitly discloses that some combinations of special processes are suitable, while others are unsuitable. However, Kubo does not disclose a means for

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canceling or permitting a special image processing based on whether an instructed combination is suitable or unsuitable.

Nielsen discloses a user-interface tool (figure 4) that prohibits mutually exclusive options from being carried out. The tool, known as radio buttons, presents the user with a list of mutually exclusive options. The user may select any successive combination of options, however, Nielsen's tool prevents more than one option from being executed when a user selects mutually exclusive options in combination. Thus, a novice user or the like is prevented from erroneously or negligently executing two or more options that are mutually exclusive (column 2, lines 3-7).

Furthermore, Nielson discloses multiple sets of mutually exclusive options (figure 4). Options 302, 304, and 306 comprise one set, and options 308 and 310 comprise a different set. Since options 302, 304, and 306 are mutually exclusive, a selected option is canceled when another option from the predetermined set is successively selected in combination. The same is true for the set 308 and 310. See column 5, lines 45-59.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kubo and Hayes by Nielsen to achieve the claimed invention by utilizing Nielsen's radio buttons to cancel user-instructed combinations of mutually exclusive (erroneous) special image processes such as hypersharpness (i.e. sharpen filter) and cross filtering (i.e. blur filter) since Nielsen's item-selection method effectively prevents unsuitable combinations of actions known to be mutually exclusive from being executed, thereby preventing erroneous results. For example, the cross filtering (i.e. blur filter) and hypersharpness (i.e. sharpen filter) would be in the same set since those two processes are mutually exclusive; therefore, any instructed combination of the two types of filters would be canceled. However, a combination of LF

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correction with either cross filtering or hypersharpness would be permitted since LF is not mutually exclusive to cross filtering or hypersharpness. Thus, LF correction would not be in the same set as cross filtering or hypersharpness since LF correction is not mutually exclusive to either one. Incorporating Nielsen's method of selecting from mutually exclusive subsets would ensure that erroneous combinations of Kubo's/Hayes' special image processes would be canceled so that erroneous results would not be realized.

Regarding claim 24, Figure 10 of Kubo shows an example of a graphical user interface for instructing special processing to be carried out. Kubo teaches that special processes relating to the image's size, color tone, and white margin are selected via pull-down windows.

Figure 11B lists the special processes related to the "color tone" parameter. More specifically, sub-list 106 lists the special processes related to the "black and white" (monotone) finish parameter. It is apparent that the special processes in the sub-list 106 are mutually exclusive. For example, the monotone finish cannot be both "pure black tone" and "warm black tone" so only one of the two can logically be designated. Any combination that includes two or more monotone finish processes is an erroneous combination; and any combination that includes only one monotone finish is potentially suitable. Thus, it can be said that combinations of two or more special processes from the "black and white" finish list 106 are predetermined to be unsuitable.

However, Kubo does not disclose selecting a combination of at least two of LF lens correction, hypersharpness, hypertone, etc., which is predetermined to be unsuitable.

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Hayes shows a screen shot (figure 4) of the well-known Adobe Photoshop software. In particular, figure 4 shows a picture being edited in a similar fashion as the image in figure 10 of Kubo. In both image editing GUIs of Kubo and Hayes, the user selects various special image processes that he would like to be performed on the image. However, Hayes shows a wider variety of image processes able to be performed, such as blurring, sharpening, and lens flare (LF) correction, wherein some of the operations, such as blurring and sharpening are mutually exclusive processes. Kubo does not explicitly disclose his image-editing software is able to perform these types of special image processes or that it is able to prevent unsuitable combinations of these types of processes, however, it would have been obvious to include the aforementioned processes as selectable options since, as Hayes demonstrates, all three processes were conventional operations utilized in a GUI image-editing software, and including them in Kubo's system, which inherently prevents unsuitable combinations via drop-down menus, would have provided more versatility in editing an image according to the user's desire.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period


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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colin M. LaRose whose telephone number is (703) 306-3489. The examiner can normally be reached Monday through Thursday from 8:00 to 5:30. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au, can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600 Customer Service Office whose telephone number is (703) 306-0377.


AMELIA M. AU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

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Group Art Unit 2623

10 June 2004